

## REMARKS

Reconsideration of the present application is respectfully requested in view of the following comments.

### 1. In the Specification

In the Office Action, the specification has been objected to on basis of informalities.

It should be pointed out that title of the invention has been changed from "Sorting Device" to --Device for Sorting Products--. Applicants submit that the new title is more clearly indicative of the subject matter recited in the claims of the present application.

As requested, the specification has been amended to include section headings at appropriate locations throughout the specification.

In view of the amendment to the specification, Applicants respectfully request approval of the specification and removal of the objections.

### 2. Claim Objections

Presently, claims 1-25 stand objected to on the basis of informalities detailed in the Office Action. Claims 1-7 and 9-25 have been rewritten as new claims 26-49 to overcome the informalities noted in the Office Action and to improve the clarity of the subject matter for which protection is sought. The voluntary changes to the claims were provided since it was perceived that some of the language could be improved to more clearly define the inventive subject matter. It is to be noted that the Examiner did not raise any rejections with regard to the language of the original claims under 35 U.S.C. § 112 or any other part of the patent laws and regulations.

As will be discussed more fully below in response to the rejections based on prior art, the claims have not introduced any new features of the present invention to the claims with the exception of the rotating polygon in claims 26, 36 and 47.

Applicants submit that in amending the claims to improve the clarity thereof, the language objected to by the Examiner in the Office Action has been removed and replaced with language that complies with U.S. formalities. Accordingly, Applicants request removal of the objection to the claims.

3. Rejection of claims 1, 2, 7, 10, 12-13 and 22-25 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 4,863,041 (Bailey)

Claims 1, 2, 7, 10, 12-13 and 22-25 currently stand rejected as being anticipated by the disclosure of Bailey. New independent claims 26, 36 and 47 correspond to original claims 1, 12 and 23, and new claims 27, 32, 34, 36-37 and 47-49 correspond to original 2, 7, 10, 12-13 and 22-25. Applicants respectfully traverse this rejection on the basis that Bailey fails to disclose or suggest each and every element in the device for sorting products of the present invention. More specifically, the optical sorting apparatus of Bailey fails to include a waveguide system that comprises a rotating polygon arranged and positioned to align and reflect light from light sources onto products transported past an inspection device.

It will be pointed out that Bailey discloses a waveguide assembly 50 that includes light sources 11, 12 that are fed into the free ends of optic cables 5, 3, 7, 6 via lenses 13, 14 and a dichroic mirror (col. 8, line 66 through col. 9, line 7). There is simply no mention of a waveguide system in the disclosure of Bailey that includes a rotating polygon provided to align and reflect light to scan products in a product stream.

Thus, in view of new claims 26, 36 and 47, Applicants respectfully submit that the disclosure of Bailey fails to disclose or suggest each and every element of the inventive device for sorting products of the present invention recited in the claims of

the present invention. Accordingly, withdrawal of the rejection is respectfully requested.

4. Rejection of claims 3-6 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 4,863,041 (Bailey) in view of U.S. Patent 5,960,142 (Shimizu)

Claims 3-6 presently stand rejected as being obvious in view of the disclosures of Bailey and Shimizu. New claims 28-31 correspond to original claims 3-6. In view of new claim 26, from which claims 28-31 either directly or indirectly depend, Applicants respectfully submit that the teachings of Bailey and Shimizu, whether considered collectively or individually, fail to disclose or suggest the device for sorting products of the present invention.

As discussed above, the disclosure of Bailey fails to disclose or suggest the rotating polygon of the waveguide system of the present invention. The disclosure of Shimizu fails to make up for this shortcoming of the disclosure of Bailey. More specifically, the disclosure of Shimizu fails to suggest any teaching that would provide motivation to supply a waveguide system with a rotating polygon.

Accordingly, in view of these observations, Applicants courteously submit that the present invention would not be obvious in view of the disclosures of Bailey and Shimizu. Withdrawal of this rejection is respectfully requested.

5. Rejection of claim 11 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 4,863,041 (Bailey) in view of U.S. Patent 5,050,952 (Fussgäger)

Claim 11 presently stands rejected as being obvious in view of the disclosures of Bailey and Fussgäger. New claim 35 corresponds to original claim 11. In view of new claim 26, from which claim 35 indirectly depends, Applicants respectfully submit that the teachings of Bailey and Fussgäger, whether considered collectively or

individually, fail to disclose or suggest the device for sorting products of the present invention.

As discussed above, the disclosure of Bailey fails to disclose or suggest the rotating polygon of the waveguide system of the present invention. The disclosure of Fussgäger fails to make up for this shortcoming of the disclosure of Bailey. More specifically, the disclosure of Fussgäger fails to suggest any teaching that would provide motivation to supply a waveguide system with a rotating polygon.

Accordingly, in view of these observations, Applicants respectfully submit that the present invention would not be obvious in view of the disclosures to Bailey and Fussgäger. Withdrawal of this rejection is respectfully requested.

6. Rejection of claims 8, 9, 14, 15 and 18 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 4,863,041 (Bailey) in view of U.S. Patent 3,786,266 (Reid et al.)

Claims 8, 9, 14, 15 and 18 presently stand rejected as being obvious in view of the disclosures of Bailey and Reid et al. New claims 33, 38, 39 and 42 correspond to original claims 9, 14, 15 and 18. In view of new claim 26, from which claim 33 depends, and new claim 36, from which claims 38, 39 and 42 depend, Applicants respectfully submit that the teachings of Bailey and Reid et al., whether considered collectively or individually, fail to disclose or suggest the device for sorting products of the present invention.

As discussed above, the disclosure of Bailey fails to disclose or suggest the rotating polygon of the waveguide system of the present invention. The disclosure of Reid et al. fails to make up for this shortcoming of the disclosure of Bailey. More specifically, the disclosure of Reid et al. fails to suggest any teaching that would provide motivation to supply a waveguide system with a rotating polygon.

Accordingly, in view of these observations, Applicants respectfully submit that the present invention would not be obvious in view of the disclosures to Bailey and Reid et al. Withdrawal of this rejection is respectfully requested.

7. Rejection of claims 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 4,863,041 (Bailey) in view of U.S. Patent 3,786,266 (Reid et al.) and further in view of U.S. Patent 5,962,262 (Jung et al.)

Claims 16 and 17 presently stand rejected as being obvious in view of the disclosures of Bailey, Reid et al. and Jung et al. New claims 40 and 41 correspond to original claims 16 and 17. In view new claim 36, from which claims 40 and 41 depend, Applicants respectfully submit that the teachings of Bailey, Reid et al. and Jung et al., whether considered collectively or individually, fail to disclose or suggest the device for sorting products of the present invention.

As discussed above, the disclosures of Bailey and Reid et al. fail to disclose or suggest the rotating polygon of the waveguide system of the present invention. The disclosure of Jung et al. fails to make up for this shortcoming of the disclosures of Bailey and Reid et al. More specifically, the disclosure of Jung et al. fails to suggest any teaching that would provide motivation to supply a waveguide system with a rotating polygon.

Accordingly, in view of these observations, Applicants respectfully submit that the present invention would not be obvious in view of the disclosures to Bailey, Reid et al. and Jung et al. Withdrawal of this rejection is respectfully requested.

8. Rejection of claims 19 and 20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 4,863,041 (Bailey) in view of U.S. Patent 3,788,741 (Buechler)

Claims 19 and 20 presently stand rejected as being obvious in view of the disclosures of Bailey and Buechler. New claims 43 and 44 correspond to original

claims 19 and 20. In view new claim 36, from which claims 43 and 44 depend, Applicants respectfully submit that the teachings of Bailey and Buechler, whether considered collectively or individually, fail to disclose or suggest the device for sorting products of the present invention.

As discussed above, the disclosure of Bailey fails to disclose or suggest the rotating polygon of the waveguide system of the present invention. The disclosure of Buechler fails to make up for this shortcoming of the disclosures of Bailey. More specifically, the disclosure of Buechler fails to suggest any teaching that would provide motivation to supply a waveguide system with a rotating polygon.

Accordingly, in view of these observations, Applicants respectfully submit that the present invention would not be obvious in view of the disclosures to Bailey and Buechler. Withdrawal of this rejection is respectfully requested.

9. Rejection of claim 21 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 4,863,041 (Bailey) in view of U.S. Patent 5,962,262 (Jung et al.)

Claim 21 presently stands rejected as being obvious in view of the disclosures of Bailey and Jung et al. New claim 45 corresponds to original claim 21. In view of new claim 36, from which claim 45 depends, Applicants respectfully submit that the teachings of Bailey and Jung et al., whether considered collectively or individually, fail to disclose or suggest the device for sorting products of the present invention.

As discussed above, the disclosure of Bailey fails to disclose or suggest the rotating polygon of the waveguide system of the present invention. The disclosure of Jung et al. fails to make up for this shortcoming of the disclosures of Bailey. More specifically, the disclosure of Jung et al. fails to suggest any teaching that would provide motivation to supply a waveguide system with a rotating polygon.

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Accordingly, in view of these observations, Applicants respectfully submit that the present invention would not be obvious in view of the disclosures to Bailey and Jung et al. Withdrawal of this rejection is respectfully requested.

10. Conclusion

In view of the amendment to the claims, and further in view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that claims 26-49 be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicants' Attorney, the Examiner is invited to contact the undersigned at the numbers shown below.

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Respectfully submitted,



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